

Water/NPDES Compliance Evaluation Inspection

Naval District Washington
Washington Navy Yard,
1014 N Street, SE, Suite 320,
Washington, DC 20374

NPDES Permit No. DC0000141

May 25, 2016

DOEE Representatives: Robert Burnett
Environmental Protection Specialist

Isaac Kelley
Environmental Protection Specialist

Washington Navy Yard
Representatives: Eric Ruffer
Stormwater Program Manager

1. Introduction

On May 25th 2016, inspectors from the Water Quality Division (WQD) of the Department of Energy and Environment (DOEE) conducted a National Pollutant Discharge Elimination System (NPDES) Compliance Evaluation Inspection (CEI) at the Washington Navy Yard (The facility or WNY). The facility was inspected to determine the accuracy and reliability of the permittee's self-monitoring program/data and compliance with their NPDES permit. NPDES program and permits derive authority from the Clean Water Act (CWA).

DOEE Inspectors Robert Burnett and Isaac Kelly reviewed records, interviewed site representatives, conducted an inspection tour of the facility, and completed EPA Form 3560-3 Water Compliance Inspection Report. The facility was represented by Eric Ruffer, Stormwater Program Manager. The weather at the time of inspection was sunny with a temperature of approximately 80°F.

2. Facility Description

Naval District Washington, formerly the Washington Navy Yard (WNY), occupies about 80.2 acres on the banks of the Lower Anacostia River and borders the eastern boundary of the Southeast Federal Center (Figure 1). The WNY was established on October 2, 1799, and served as a major shipbuilding facility during the first part of the 19th century. During the latter part of the 19th century, shipbuilding operations ceased and the WNY became the Naval Gun Factory in 1886. During World War II the Naval Gun Factory employed 25,000 people and was the largest gun factory in the world. In 1961, gun production ceased and the facility was converted to administrative and supply use. Currently, the facility includes administrative, supply, and storage buildings; training facilities; residences; and museums. On September 27, 1999, a Federal Facility Agreement (FFA) was finalized between the U.S. Environmental Protection Agency (EPA) Region III, the Navy, and District of Columbia Department of Health, effectively placing the WNY under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or "Superfund") and the Defense Environmental Restoration Act (DERA). The facility still contains a number of active remediation and investigation sites.

Stormwater that accumulates at the site is collected in a subsurface stormwater sewer system. The stormwater sewer system consists of twelve stormwater drainage basins; eight drainage basins are serviced by Navy-owned stormwater inlets, sewer pipes, outfalls, and discharge directly to the Anacostia River; two drainage basins are serviced by Navy-owned stormwater inlets and sewer pipes that are connected to a DC Water owned Combined Sewer System (CSS) ; one drainage basin that is serviced by Navy-owned stormwater inlets and sewer pipes that are connected to a District of Columbia Combined Sewer System (CSS) and to the District of Columbia's Municipally Separate Storm Sewer System (MS4) sewer pipe; and one sump pump located at Building 118 that is discharged to the CSO (**Figure 2**).

In 2001, WNY completed a storm sewer rehabilitation project in which contaminated sediments were removed. In addition, stormwater lines were upgraded (replaced or lined) to minimize soil and groundwater entry into the stormwater sewer lines and manholes. As of 2001, about 21,040 linear feet of the storm sewer system had been cleaned, 9,100 linear feet has been lined using cure-in-place liner, and 11,400 linear feet has been replaced or newly installed. The final

discharge point for most of WNY stormwater is directly to the Anacostia River except where noted above as connected to the CSS.

The WNY currently has 38 best management practices (BMPs) installations (Table 1) located within the twelve on-site drainage basins. BMPs are used at the facility to treat and retain stormwater.

Table 1: BMPs Installed at the Washington Navy Yard Facility.

BMP ID	BMP Type	Drainage Basin	Area Treated (Acres)	Location	Year of Installation
WNY1	Permeable Pavement	1	0.18	SE Parking Lot, South Bldg 166	2002
WNY2	Permeable Pavement	1	0.31	SE Parking Lot, South Bldg 166	2002
WNY3	Bio Retention	1	0.08	SE Parking Lot, South Bldg 166	2002
WNY4	Bio Retention	1	0.23	SE Parking Lot, South Bldg 166	2002
WNY5	Permeable Pavement	1	0.09	East Bldg 166	2002
WNY6	Sand Filter	001E	1.23	Isaac Hull Ave, South Bldg 197A	2002
WNY7	Permeable Pavement	5	0.25	Parking Lot, SW Corner Bldg 70	2002
WNY8	Bio Retention	6	0.36	Parking Lot, South Bldg 292	2002
WNY9	Bio Retention	6	0.15	Parking Lot, SE Corner Bldg 292	2002
WNY10	Rain Barrel	6	0.025	Parking Lot, South Bldg 292	2002
WNY11	Permeable Pavement	7	0.33	Parking Lot, East of Willard Park	2002
WNY12	Permeable Pavement	8	0.16	East Bldg 22	2002
WNY13	Permeable Pavement	8	0.16	East Bldg 22	2002
WNY14	Permeable Pavement	8	0.16	East Bldg 22	2002
WNY15	Permeable Pavement	8	0.16	East Bldg 22	2002
WNY16	Bio Retention	8	0.35	East Bldg 76	2002
WNY17*	Bio Retention	8	0.17	East Bldg 76	2002
WNY18	Sand Filter	8	0.84	NE Corner Bldg 201	2002
WNY19	Permeable Pavement	9	0.32	North Building 22	2002
WNY20	Permeable Pavement	9	0.32	North Building 22	2002
WNY21	Permeable Pavement	9	0.32	North Building 22	2002
WNY22	Jelly Fish Filter	9	1.17	West Bldg 28	2014

BMP ID	BMP Type	Drainage Basin	Area Treated (Acres)	Location	Year of Installation
WNY23	Jelly Fish Filter	9	1.51	West Bldg 104	2014
WNY24	Sand Filter	9	0.78	North Bldg 112	2002
WNY25	Sand Filter	9	1.13	West Bldg 28	2002
WNY26	Pollutant Separator	9	1.13	East Bldg 28	2002
WNY27	Bio Retention	13	0.22	South Bldg 211	2002
WNY28	Sand Filter	13	1.69	West Bldg 405	2002
WNY29	Sand Filter	13	1.69	West Bldg 406	2002
WNY30	Rain Barrel	CSO15	N/A	North Bldg 69	2002
WNY31	Tree-box Filter	CSO15	N/A	9th St SE, North of Bldg 58	2002
WNY32	Tree-box Filter	15H	0.5	North Building 200	2010
WNY33	Pollutant Separator	1	N/A	Parking Lot, South Bldg 166	2013
WNY34	Pollutant Separator	5	3.7	Parking Lot, NW Corner Bldg 70	2014
WNY35	Pollutant Separator	13	N/A	10th Street, NE Corner Bldg 211	2014
WNY36	Pollutant Separator	15H	N/A	Street N Street, Between Bldg 172 and Bldg 175	2014
WNY37	Pollutant Separator	15G	N/A	O Street, Between 183 and Bldg 405	2014
WNY38	Pollutant Separator	8	N/A	Kennon Street, Between Bldg 111 and Bldg 36	2014

N/A – Not Available or unknown

* WNY17 is currently under construction

3. Records and Reports

Records and reports associated with the permit at the site reviewed during the inspection included; the base wide surveying plan, the 2016 Illicit Discharge Survey (**Photo 1**), the Stormwater Pollution Prevention Plan (SWPPP) (**Photo 2**), and BMP monthly and quarterly inspection and efficiency reports.

A number of reports were not available at the time of inspection: A PCB report, the Fecal Coliform Study (due within 12 months of permit activation), and a Conductivity report are currently still under review. WNY representatives confirmed that the PCB and Fecal coliform Study should be completed in July and the conductivity report is almost finalized.

The findings of the previous Illicit Discharge Surveys (IDS) were provided and reviewed. The 2016 IDS indicated there were dry weather flows detected at Outfalls 013, 014, 005, 006 and 001E. The source of dry weather flow was identified at 4 of these outfalls, with condensate identified as the flow source for outfalls 013 (ice maker) and 001E (cooling tower), and broken

water lines as the source for outfalls 005 and 006. A flow source for outfall 014 could not be identified. The survey findings recommended the installation repair a broken potable water line contributing to dry weather flow at outfalls 005 and 006 and utilize CCTV to further investigate the origin of dry weather flows to outfall 014. The WNY representative stated that the installation is currently reviewing the document and has not yet decided the next steps for investigating this flow.

The DMR, lab reports, and chain of custody documents review included a comparison of reported monitoring results versus requirements and limitations contained within the permit for the 2014 to 2016 monitoring period. There were no discrepancies in the reviewed records. Multiple effluent limitation excursions were identified since the last inspection:

- Outfall 001E:
 - March 2015 - Cu 323 ug/L
- Outfall 007:
 - April 2015 - Cu 119 ug/L
- Outfall 008:
 - April 2015 - Cu 121 ug/L
 - October 2015 - Cu 124 ug/L

During the 2011 and 2014 inspections, facility representatives informed inspectors that the SWPPP was in the process of being revised. During the 2014 inspection a version updated in 2012 was provided for review and was forwarded to DOEE following the inspection. During the 2016 inspection, facility representatives supplied a SWPPP updated in 2014. During the 2014 inspection, WNY representatives were informed the original SWPPP and subsequent updates do not address or identify potential sources of pollution that would reasonably be expected to affect the quality of stormwater associated with contaminated sites identified in the 1999 Federal Facilities Agreement. The facility representative stated the SWPPP revision is currently waiting for the new permit to be approved. DOEE inspectors informed WNY that following the inspection a proof of contract and schedule for completion of the SWPPP update must be provided.

The SWPPP also contains instructions for quarterly and annual facility and BMP inspections. During the inspection facility representatives provided copies of monthly **(Photo 3)** and quarterly **(Photo 4)** BMP inspections and general housekeeping activities. The annual compliance evaluation form has not been conducted since 2014 and is completed by a contractor. The current WNY representative was uncertain why the evaluation was not completed the prior year.

The 2012 BMP Efficiency Report presented the results of an assessment of the pollutant removal efficiencies of structural BMPs currently installed at the WNY. The report findings and recommendations were organized by drainage basin and found that the BMPs that were installed were operating efficiently and were generally in good to moderate condition. The report recommended additional BMPs be installed in Drainage Basins 001 and 005. WNY representatives stated that there was no budget currently available for the additional BMPs suggested but there are repairs and upgrades currently underway.

Training records were not maintained with the SWPPP and the facility representative stated the training was available on the Navy Environmental Compliance Assistance, Training, and Tracking (ECATTS) system but there was no record of who had completed the trainings. Facility representatives stated that a contract was pending to revamp the training and provide a documenting system to validate all relevant employees are receiving training. The WNY representative stated the system is planned for roll out by the 4th quarter of this year, but contracting is still being negotiated.

4. Permit Verification

Stormwater discharges from the facility are regulated by NPDES Permit No. DC0000141 (the permit). The permit was issued to WNY on December 23, 2009. It became effective on January 22, 2010 and expired on January 22, 2015. The facility submitted their reapplication in July 25, 2014, and it is currently administratively continued.

The permit authorizes the discharge of the facility's stormwater through twelve outfalls located along the Anacostia River. The permit was available for review at the time of inspection and appears to adequately characterize discharges to the receiving waters. The monitoring requirements, treatment processes, and all discharges are permitted.

5. Operation and Maintenance

Stormwater that accumulates at the site is collected in a subsurface stormwater drainage system which discharges directly into the Anacostia River, the CSS, and to the MS4. Pollution reduction and treatment of stormwater to meet effluent requirements are accomplished using a combination of BMPs including; sand filters, permeable pavement, bio-retention areas, pollution separators, tree boxes, rain barrels, and jelly fish filters. The facility also has two catch basin stormwater separator BMPs (Snout and Vortex types) installed in adjoining catch basins located in Drainage Basin 007; however, these are not included by the facility in their list of BMPs.

During the facility inspection each type of BMP was visited and when possible inspected. Some BMPs could not be accessed due to vehicles in the way, or the weight off manholes being prohibitive. In addition, during the inspection the facility representative stated they now had an inspection and maintenance schedule. A weekly general inspection and a more specific quarterly BMP inspection are now conducted. BMP 17 is currently under construction; building 76 is receiving a waterproof lining (**Photo 5**).

Sand filters were visited in Drainage Basins 013 and 201; the facility representative did not have the proper tools to open the manholes due to their size. The facility representative stated he was unaware if the sand filters were still on a cleaning schedule but believes they underwent a full scale service cleaning a few years ago but was unable to provide documentation. Permeable pavers were visually inspected at multiple locations on the WNY facility. The pavers were observed to be in good condition with a few areas of sediment build up and some instances of displaced fill material (**Photos 6 and 7**). Bio-retention areas were visually inspected in Drainage Basin's 001, 006, 008, and 013 (**Photos 8 and 9**). All of the BMPs are scheduled to undergo an assessment by an outside party during the summer of 2016.

6. Compliance Schedules

Part III, Section A.19.b of the permit requires within six months of the first PCB analytical test results above the detection limits of EPA method 1668B that the facility to submit a plan to determine the source of the PCB discharge and a pollution minimization plan. A plan was submitted in May of 2011. According to DOEE records the plan was insufficient and a revised plan has not been submitted. DOEE inspectors requested that the plan be sent to EPA and DOEE for review and approval. To DOEE's knowledge a new plan was never submitted but the facility representative stated the final report will be available after July 7, 2016. In follow up conversations, the facility representative stated he believes a plan was submitted to EPA and comments received and addressed prior to beginning the study and was unaware of DOEE's involvement during the planning stages of the study.

Part III, Section B of the permit requires the facility implement interim milestones to achieve compliance with final effluent limits specified in the permit. Some of the compliance schedules include:

Table 3: Compliance Schedule

Activity	Time Period from Effective Date of Permit	Status
1. Submit a report identifying best management practices that the facility is implementing	12 months	Complete
2. Select control measures	18 months	Complete
3. Design selected control measures	24 months	Unknown
4. Installation of selected control measures	30 months	Unknown
5. Achieve compliance with effluent limits	36 months	Incomplete
6. Submit progress reports	Every four months (quarterly)	Incomplete
7. Fecal Coliform Study	12 months	Late (Under Final Review)

In January 2012 the WNY submitted a Best Management Practices Efficiency Report satisfying condition one of the compliance schedule. A report summarizing the selection, design, or installation of control measures (compliance items two, three, and four) were not received by DOEE WQD; quarterly progress reports have also not been received. In 2013 the WNY began installing new BMPs and the facility representative stated that the facility plans on installing several more BMPs. A review of the DMR's shows that the installation continues to have issues with Copper exceedances at multiple outfalls in addition to PCBs indicated in the Illicit Discharge Report. The Fecal Coliform Study is complete and the document is in final review but it has not been submitted to DOEE, according to the compliance schedule this report was due by January 22, 2011.

7. Self-Monitoring Program

The facility is conducting its self-monitoring program in accordance with the Permit Part II, Section C.3, which requires that monitoring be conducted according to procedures approved under 40 CFR 136.

7.1 Sampling

The facility is conducting its self-monitoring program in accordance with Permit Part II, Section C.3, which requires that monitoring should be conducted according to procedures approved under 40 CFR 136. The permit also requires the facility to conduct representative sampling, flow measurements, and report all monitoring results.

(a) Flow Measurement

Flow of stormwater is estimated by using the rational method which depends on drainage area, average rainfall intensity, and runoff coefficient. The facility has its own weather station located on Building 212 that records rainfall in addition to the data the facility obtains from Ronald Reagan National Airport. According to the facility representative, the rational method gives them a good estimate of the stormwater flow.

(b) Representative Sampling

The permit requires the facility to collect samples that are representative of the volume and nature of the monitored discharge. The outfalls are mostly submerged in the Anacostia River, and sampling is done in manholes upstream from the final discharge points. In 2012 the facility installed tide flex valves in the facility owned outfalls to prevent river water from entering the facilities sewer pipes allowing for a sample that is representative of stormwater and not a mixture of stormwater and river water. A conductivity study completed following their installation is in final review. The facility representative stated that the study implied the flex valves were functioning properly.

The sampling location for each of the eight WNY owned outfalls were observed during the inspection. Although some could not be opened due to their location or vehicles blocking the sampling locations. Standing water was seen in outfalls 005, 007, and 009 (**Photos 10, 11, and 12**) the facility representative stated water in 009 was the partially the result of the manhole being significantly deeper than the outflow pipe.

Outfalls 001 (**Photo 13**), 005 (**Photo 10**), and 014 (**Photo 14**) contained dry weather flows during the inspection. The flowing water was possibly the result of outflow from bio-retention BMPs in the area. However, dry weather discharge to Outfall 005 was also identified in the Illicit Discharge Survey.

The facility representative stated that due to issues with access and stormwater backup behind the valves (insufficient head pressure to discharge during smaller rain events) that some of the sampling locations have been moved. In addition, a sampling location is now being collected as a composite sample (001). Lastly, the facility also is relocating sampling locations for outfalls 013 and 015G (**Photos 15 and 16**) downgradient of the BMPs.

Sampling is conducted by CH2MHILL, the sampling crew is on 24-hour watch; a telemetry system connected to the facilities weather center notifies the sampling team of qualifying storm events. The facility uses grab sampling techniques for their sample collection method. The sample collection methods are adequate and meet the permit requirements.

The facility continues to move and alter sampling locations and methods without notifying DOEE or EPA. During the 2014 inspection and during the current inspection the facility was instructed that this cannot occur in the future and that sampling points must be approved prior to establishing new sampling location or using new sampling methodologies.

(c) Laboratory

The facility representative stated that WNY uses a contract laboratory (Microbac Laboratories, Inc., located at 2101 Van Deman St. Baltimore, Maryland 21224) to collect and test effluent samples for permit parameters such as total suspended solids, pH, oil and grease, E. coli, total phosphorus, total nitrogen, PCB, PAH total copper, total lead, total zinc, and biological oxygen demand. PCB analysis by EPA 1668B is conducted by Cape Fear Analytical LLC located at 3306 Kitty Hawk Road, Wilmington, NC 28405. The samples are collected and analyzed according to the schedules set forth in NPDES Permit DC0000141. The laboratories were not visited during the inspection.

8. Effluent and Receiving Waters

The facility has twelve outfalls (Table 2). These outfalls discharge directly to the Anacostia River or indirectly through the CSS and MS4. At the time of inspection, there was no oil sheen, grease, visible foam, or visible floating solids at the receiving waters. The entire river was turbidity at the time of inspection. Inspectors could not tell if the facility was discharging or not because all the outfalls aside from outfall 001 were submerged.

Table 2: Outfalls at the Washington Navy Yard facility

Outfall Number	Receiving Waters
001	Anacostia River
005	Anacostia River
006	Anacostia River
007	Anacostia River
008	Anacostia River
009	Anacostia River
013	Anacostia River
014	Anacostia River
CSO-14F*	Anacostia River
CSO-15G	Anacostia River
CSO-15H	Anacostia River
MS4-01E	Anacostia River

*This connection to the CSO receives discharge from a sump pump in Building 118 and is only used during emergencies.

*not connected for several years closed/removed!
as per WNY 3/9/17.*

During the inspection of the sampling locations for the eight WNY owned outfalls dry weather flow was observed at Outfall 001 (**Photo 13**). The sampling locations at Outfall 001B (**Photo 17**) was dry indicating flow was coming from the area of 001A which contains a bio-retention area and parking lot. The volume of flow observed was low.

9. Past and Current Inspection Findings

9.1 2011 Inspection Findings

No Findings

9.2 2014 Inspection Findings

A0012- Numeric Effluent Violation:

One copper effluent limit excursion for Outfall 001E reported on April 15, 2014

B0020- Improper Operation and Maintenance

The March inspection conducted by DDOE WPD identified two sand filters that were in need of maintenance.

9.3 2016 Inspection Findings

1. A0012 – Effluent Violations – Numeric Effluent Violation

Self-report of WNY to the NPDES NetDMR system included the following effluent violation:

- Outfall 001E:
 - March 2015 - Cu 323 ug/L

2. A0012 – Effluent Violations – Numeric Effluent Violation

Self-report of WNY to the NPDES NetDMR system included the following effluent violation:

- Outfall 007:
 - April 2015 - Cu 119 ug/L

3. A0012 – Effluent Violations – Numeric Effluent Violation

Self-report of WNY to the NPDES NetDMR system included the following effluent violation:

- Outfall 008:
 - April 2015 - Cu 121 ug/L

4. A0012 – Effluent Violations – Numeric Effluent Violation

Self-report of WNY to the NPDES NetDMR system included the following effluent violation:

- Outfall 008:
 - October 2015 - Cu 124 ug/L

5. B0019 – Management Practice Violations – Best Management Practice Deficiencies

Section B.1. Proper Operation and Maintenance

Section B. Operation and Maintenance of Pollution Controls

1. Proper Operation and Maintenance

The facility shall at all times properly operate and maintain all facilities and system of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when necessary to achieve compliance with the conditions of this permit.

During the inspection the facility was uncertain when the most recent inspection of the sand filters occurred and were unable to provide a history of maintenance or cleaning documents.

6. B0041 – Management Practice Deficiencies – Failure to Maintain Records

Part III. Special Conditions

Section A. Storm Water Pollution Prevention Plan

6. Summary of Measures and Controls

C. Employee Training

Facility personnel responsible for implementing the activities identified in the SWPPP shall complete a program of classroom instruction or on-the-job training on the storm water system. At a minimum, the training program shall provide adequate instruction on procedures for using, inspecting repairing, cleaning, and replacing storm water sewers and related equipment, and responses to emergency conditions.

The facility has failed to document training procedures and dates of completion for required staff.

7. B0017 – Management Practice Violations – Failure to develop any or adequate SWPPP

Part III. Special Conditions

Section A. Storm Water Pollution Prevention Plan

1. General

A SWPPP was submitted by the permittee in April 2007 and it is included as part of the administrative record of this permit. The plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with contaminated sites from the facility. Contaminated sites are sites that may reasonably be expected to adversely affect the water quality of storm water discharges, including, but not limited to, the contaminated sites identified in the June 1999 Federal Facility Agreement, In the Matter of Washington Navy Yard, III-FCA-CERC-016.

WNY has been repeatedly instructed to update the SWPPP to include sources of historic contamination as outlined in the 1999 Federal Facility Agreement (FFA) between EPA, DOEE, and WNY. The installation has completed multiple updates of the SWPPP and failed to include this information.

8. C0014 – Monitoring Violations – Invalid/Unrepresentative Sample.

Part II

Section C.

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit. Monitoring points shall not be changed without notification to and the approval of EPA.

During the inspection, Isaac Kelly and I viewed three sampling locations which were altered with no notification or approval from DOEE. Including locations 001, which was moved upgradient and is now collected as a composite sample, and sample locations 013 and 015 which were moved downgradient to manholes specifically installed to provide a new sampling location. Regardless of the appropriateness of the current sampling locations and methods, changing sampling methods and locations without prior knowledge and approval of DOEE and EPA violates the NPDES permit.

9. B0042 – Management Practice Violations – Violation of a Milestone in an Order

Part III. Special Conditions

Section B. Compliance Schedule

Achievement of compliance with effluent limits – 36 months

WNY has had this permit for 60 months. There have been multiple Copper excursions of effluent limits, particularly at Outfall 001E which also had a copper exceedance in 2014. The installation has failed to properly address and identify the sources of these metals and prevent them from entering the Anacostia during wet weather events.

10. E0016 – Failure to Submit Required Report (non-dmr, non-pretreatment)

Part III. Special Conditions

Section B. Compliance Schedule

The permittee shall submit quarterly progress report to EPA Region III and DOEE indicating status of the interim compliance milestones listed above.

WNY has failed to submit quarterly reports regarding the interim compliance milestones from the beginning of this permit.

11. E0016 – Failure to Submit Required Report (non-dmr, non-pretreatment)

Part III. Special Conditions

Section B. Compliance Schedule

Fecal Coliform Study

Within twelve months from the effective date of the permit, the permittee shall submit a report identifying the sources of fecal coliform at the Washington Navy Yard. If the sources of fecal coliform are anthropogenic, the permittee shall submit with the report required under this condition a correction plan to address them.

The fecal coliform study should have been completed January 22, 2011. It is currently more than 5 years past due.

10. Conclusions

Although the WNY facility's BMPs and maintenance are currently sufficient, the WNY has repeatedly shown an inability to follow through on inspector's directives, meet deadlines set in the permit, and properly report and document activities. In addition, they have altered sampling locations and methods without DOEE or EPA approval. The facility has repeated effluent violations mostly involving Copper at multiple locations, which were identified in both the previous and current inspections. Lastly, the installation has recurring dry weather flows at varying outfalls and has not done sufficient diligence to identify and stop flows in a timely manner.

Mainly outfall 004 has high PCB concentrations

Due to the purported upcoming activities during the upcoming months at WNY, DOEE plans on performing a follow up inspection during September of 2016 and will add an addendum to this report.

Attachments:

- A. Water Compliance Inspection Report - EPA Form 3560-3.
- B. Photograph log



United States Environmental Protection Agency
Washington, D.C. 20460
Water Compliance Inspection Report

Section A: National Data System Coding (i.e. PCS)

Transaction Code NPDES yr/mo/day Inspection Type Inspector FacType
1 N 2 3 DC00000141 11 12 16/05/26 17 18 C 19 S 20 4
Remarks
21 66
Inspection Work Days Facility Self-Monitoring Evaluation Rating BI QA -----Reserved-----
67 7 69 70 3 71 N 72 N 73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) Naval District Washington Washington Navy Yard 1014 N Street, SE, Suite 320 Washington, DC 20374	Entry Time/Date 10:30 AM May 25, 2016	Permit Effective Date 01/22/2010
	Exit Time/Date 1:30 PM May 25, 2016	Permit Expiration Date 01/22/2015*

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
1. Eric Ruffer, Stormwater Program Manager

Name, Address of Responsible Official/Title/Phone and Fax Number
Durant Graves, Institutional Environmental Program Manager

Other Facility Data (e.g., ISC NAICS, and other descriptive information)
Contacted
☒ Yes ☐ No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Self-Monitoring Program	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input checked="" type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Compliance Schedules	<input checked="" type="checkbox"/> Pollution Prevention	
<input checked="" type="checkbox"/> Facility Site Review	<input type="checkbox"/> Laboratory	<input checked="" type="checkbox"/> Stormwater	
<input checked="" type="checkbox"/> Effluent/Receiving Waters	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input type="checkbox"/> Flow Measurement	<input type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description
A0012	Numeric Effluent Violation
A0012	Numeric Effluent Violation
A0012	Numeric Effluent Violation
A0012	Numeric Effluent Violation
B0019	Best Management Practice Deficiencies
B0041	Failure to Maintain Records
B0017	Failure to Develop any or Adequate SWPPP
C0014	Invalid/Unrepresentative Sample
B0042	Violation of a Milestone in an Order
E0016	Failure to Submit Required Report
E0016	Failure to Submit Required Report

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Robert Burnett Inspector	Department of Energy and the Environment Water Quality Division - 202.535.1725	05.26.16
Isaac Kelley Q/A Reviewer	Department of Energy and the Environment Water Quality Division - 202.535.2691	05.26.16
Joshua Rodriguez Signature of Management	Department of Energy and the Environment Water Quality Division - 202.535.1025	7/25/16

Comments

*Facility representatives stated the permit renewal has been filed and completed and they are only awaiting the final permit from EPA.
The permit is administratively continued.

PERMIT NO. DC0000141	
SECTIONS F THRU L: COMPLETE ON ALL INSPECTIONS, AS APPROPRIATE. N/A = NOT APPLICABLE	
SECTION F - FACILITY AND PERMIT BACKGROUND	
ADDRESS OF PERMITTEE IF DIFFERENT FROM FACILITY (Including City, County and ZIP code)	DATE OF LAST PREVIOUS INVESTIGATION BY EPA/STATE May 27, 2014 FINDINGS A0012 Numeric Effluent Violation (Outfall 001E on 04/15/2014) B0020 Improper Operation and Maintenance (BMP Maintenance)
SECTION G - RECORDS AND REPORTS	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
DETAILS:	
(a) ADEQUATE RECORDS MAINTAINED OF:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SAMPLING DATE, TIME, EXACT LOCATION	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
ANALYSES DATES, TIMES	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
INDIVIDUAL PERFORMING ANALYSIS	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
ANALYTICAL METHODS/TECHNIQUES USED	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
ANALYTICAL RESULTS (e.g., consistent with self-monitoring report data)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
(b) MONITORING RECORDS (e.g., flow, pH, D.O., etc.) MAINTAINED FOR A MINIMUM OF THREE YEARS INCLUDING ALL ORIGINAL STRIP CHART RECORDINGS (e.g., continuous monitoring instrumentation, calibration and maintenance records)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
(c) LAB EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS KEPT	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
(d) FACILITY OPERATING RECORDS KEPT INCLUDING LOGS FOR EACH TREATMENT UNIT	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
(e) QUALITY ASSURANCE RECORDS KEPT	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
(f) RECORDS MAINTAINED OF MAJOR CONTRIBUTING INDUSTRIES (and their compliance status) USING PUBLICLY OWNED TREATMENT WORKS	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
SECTION H - PERMIT VERIFICATION	
INSPECTION OBSERVATIONS VERIFY THE PERMIT.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
DETAILS:	
(a) CORRECT NAME AND MAILING ADDRESS OF PERMITTEE.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
(b) FACILITY IS AS DESCRIBED IN PERMIT.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
(c) PRINCIPAL PRODUCT(S) AND PRODUCTION RATES CONFORM WITH THOSE SET FORTH IN PERMIT APPLICATION.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
(a) CORRECT NAME AND MAILING ADDRESS OF PERMITTEE.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
(d) TREATMENT PROCESSES ARE AS DESCRIBED IN PERMIT APPLICATION	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
(e) NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
(f) ACCURATE RECORDS OF RAW WATER VOLUME MAINTAINED	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
(g) NUMBER AND LOCATION OF DISCHARGE POINTS ARE AS DESCRIBED IN PERMIT.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
(h) CORRECT NAME AND LOCATION OF RECEIVING WATER	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
(i) ALL DISCHARGES ARE PERMITTED	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Comments 	

				PERMIT NO. DC0000141
SECTION I - OPERATION AND MAINTENANCE				
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED.		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
DETAILS:				
(a) STANDBY POWER OR OTHER EQUIVALENT PROVISIONS PROVIDED.		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(b) ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(c) REPORTS ON ALTERNATE SOURCE OF POWER SENT TO EPA/STATE AS REQUIRED BY PERMIT.		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(d) SLUDGES AND SOLIDS ADEQUATELY DISPOSED.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(e) ALL TREATMENT UNITS IN SERVICE.		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ¹	<input type="checkbox"/> N/A
(f) CONSULTING ENGINEER RETAINED OR AVAILABLE FOR CONSULTATION ON OPERATION AND MAINTENANCE PROBLEMS.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(g) QUALIFIED OPERATING STAFF PROVIDED.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(h) ESTABLISHED PROCEDURES AVAILABLE FOR TRAINING NEW OPERATORS.		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
(i) FILES MAINTAINED ON SPARE PARTS INVENTORY, MAJOR EQUIPMENT SPECIFICATIONS, AND PARTS AND EQUIPMENT SUPPLIERS.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(j) INSTRUCTIONS FILES KEPT FOR OPERATION AND MAINTENANCE OF EACH ITEM OF MAJOR EQUIPMENT.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(k) OPERATION AND MAINTENANCE MANUAL MAINTAINED.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(l) SPCC PLAN AVAILABLE.		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(m) REGULATORY AGENCY NOTIFIED OF BY-PASSING. (Dates _____)		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(n) ANY BY-PASSING SINCE LAST INSPECTION.		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
(o) ANY HYDRAULIC AND/OR ORGANIC OVERLOADS EXPERIENCED.		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
SECTION J - COMPLIANCE SCHEDULES				
PERMITTEE IS MEETING COMPLIANCE SCHEDULE.		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No ²	<input type="checkbox"/> N/A
CHECK APPROPRIATE PHASE(S):				
<input type="checkbox"/> (a) THE PERMITTEE HAS OBTAINED THE NECESSARY APPROVALS FROM THE APPROPRIATE AUTHORITIES TO BEGIN CONSTRUCTION.				
<input type="checkbox"/> (b) PROPER ARRANGEMENT HAS BEEN MADE FOR FINANCING (mortgage commitments, grants, etc.).				
<input type="checkbox"/> (c) CONTRACTS FOR ENGINEERING SERVICES HAVE BEEN EXECUTED.				
<input type="checkbox"/> (d) DESIGN PLANS AND SPECIFICATIONS HAVE BEEN COMPLETED.				
<input type="checkbox"/> (e) CONSTRUCTION HAS COMMENCED.				
<input type="checkbox"/> (f) CONSTRUCTION AND/OR EQUIPMENT ACQUISITION IS ON SCHEDULE. (g) CONSTRUCTION HAS BEEN COMPLETED.				
<input type="checkbox"/> (h) START-UP HAS COMMENCED.				
<input type="checkbox"/> (i) THE PERMITTEE HAS REQUESTED AN EXTENSION OF TIME.				
SECTION K - SELF-MONITORING PROGRAM				
PART 1 - FLOW MEASUREMENT				
PERMITTEE FLOW MEASUREMENT MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
DETAILS:				
(a) PRIMARY MEASURING DEVICE PROPERLY INSTALLED.		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
TYPE OF DEVICE:				
<input type="checkbox"/> WEIR	<input type="checkbox"/> PARSHALL FLUME	<input type="checkbox"/> MAGMETER	<input type="checkbox"/> VENTURI METER	<input type="checkbox"/> OTHER (Specify _____)
(b) CALIBRATION FREQUENCY ADEQUATE. (Date of last calibration ____)		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(c) PRIMARY FLOW MEASURING DEVICE PROPERLY OPERATED AND MAINTAINED.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(d) SECONDARY INSTRUMENTS (totalizers, recorders, etc.) PROPERLY OPERATED AND MAINTAINED.		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(e) FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGES OF FLOW RATES.		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

PART 2 - SAMPLING				PERMIT NO. DC0000141		
PERMITTEE SAMPLING MEETS THE REQUIREMENTS AND INTENT OF THE PERMIT.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
DETAILS:						
(a) LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(b) PARAMETERS AND SAMPLING FREQUENCY AGREE WITH PERMIT.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(c) PERMITTEE IS USING METHOD OF SAMPLE COLLECTION REQUIRED BY PERMIT.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
IF NO, <input type="checkbox"/> GRAB <input type="checkbox"/> MANUAL COMPOSITE <input type="checkbox"/> AUTOMATIC COMPOSITE				FREQUENCY		
(d) SAMPLE COLLECTION PROCEDURES ARE ADEQUATE.				<input checked="" type="checkbox"/> Yes ³	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(i) SAMPLES REFRIGERATED DURING COMPOSITING				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(ii) PROPER PRESERVATION TECHNIQUES USED				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(iii) FLOW PROPORTIONED SAMPLES OBTAINED WHERE REQUIRED BY PERMIT				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(iv) SAMPLE HOLDING TIMES PRIOR TO ANALYSES IN CONFORMANCE WITH 40CFR136.3				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(e) MONITORING AND ANALYSES BEING PERFORMED MORE FREQUENTLY THAN REQUIRED BY PERMIT				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
(f) IF (e) IS YES, RESULTS ARE REPORTED IN PERMITTEE'S SELF-MONITORING REPORT.				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
PART 3 - LABORATORY						
PERMITTEE LABORATORY PROCEDURES MEET THE REQUIREMENTS AND INTENT OF THE PERMIT				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
DETAILS:						
(a) EPA APPROVED ANALYTICAL TESTING PROCEDURES USED. (40 CFR 136.3)				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(b) IF ALTERNATE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(c) PARAMETERS OTHER THAN THOSE REQUIRED BY THE PERMIT ARE ANALYZED.				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
(d) SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(e) QUALITY CONTROL PROCEDURES USED.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(f) DUPLICATE SAMPLES ARE ANALYZED _____ % OF TIME.				<input checked="" type="checkbox"/> Yes ⁴	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(g) SPIKED SAMPLES ARE USED _____ % OF TIME.				<input checked="" type="checkbox"/> Yes ⁴	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(h) COMMERCIAL LABORATORY USED.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
(i) COMMERCIAL LABORATORY STATE CERTIFIED.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
LAB NAME <u>Microbac Laboratories, Inc., Baltimore Division / Cape Fear Analytical LLC.</u>						
LAB ADDRESS <u>2101 Van Deman Street, Baltimore, MD 21224 / 3306 Kitty Hawk Road, Wilmington, NC 28405</u>						
Tel.: <u>410-633-1800 / 910-795-0421</u>						
Comments:						
1. BMP WNY17 is currently under construction 2. WNY has failed to meet the compliance schedule of meeting all effluent guidelines within 36 months 3. Flow of stormwater is estimated by using the rational method which depends on drainage area, average rainfall intensity, and runoff coefficient 4. Sample Collection Points have been relocated without notifying EPA or DOEE but appear to still be appropriately located 4. All QA/QC procedures are in compliance with EPA regulations						

						PERMIT NO. DC0000141	
SECTION L - EFFLUENT/RECEIVING WATER OBSERVATIONS (Further explanation attached _____)							
OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	VISIBLE FLOAT SOLIDS	COLOR	OTHER
001E (MS4) ⁵							
001	NONE	NONE	RIVER TURBITY	NONE	NONE	NONE	NONE
005	NONE	NONE	RIVER TURBITY	NONE	NONE	NONE	NONE
006	NONE	NONE	RIVER TURBITY	NONE	NONE	NONE	NONE
007	NONE	NONE	RIVER TURBITY	NONE	NONE	NONE	NONE
008	NONE	NONE	RIVER TURBITY	NONE	NONE	NONE	NONE
009	NONE	NONE	RIVER TURBITY	NONE	NONE	NONE	NONE
013	NONE	NONE	RIVER TURBITY	NONE	NONE	NONE	NONE
014	NONE	NONE	RIVER TURBITY	NONE	NONE	NONE	NONE
014F (CSO) ⁵							
015H (CSO) ⁵							
015G (CSO) ⁵							
SECTION M - SAMPLING INSPECTION PROCEDURES AND OBSERVATIONS (Further explanation attached _____.)							
<input type="checkbox"/> GRAB SAMPLES OBTAINED <input type="checkbox"/> COMPOSITE OBTAINED <input type="checkbox"/> FLOW PROPORTIONED SAMPLE <input type="checkbox"/> AUTOMATIC SAMPLER USED <input type="checkbox"/> SAMPLE SPLIT WITH PERMITTEE <input type="checkbox"/> CHAIN OF CUSTODY EMPLOYED <input type="checkbox"/> SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE COMPOSITING FREQUENCY _____ PRESERVATION _____ SAMPLE REFRIGERATED DURING COMPOSITING: <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE: <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A							
SECTION N - ANALYTICAL RESULTS (Attach report if necessary)							
4. The outfall is connected to either the MS4 or CSO and could not be viewed							

EPA FORM 3560-3

Water/NPDES Compliance Inspection
NPDES No. DC0000141
Naval District Washington
1014 N Street, SE Suite 320, Washington, DC 20374

Inspectors: Robert Burnett, Isaac Kelley, Department of Energy and the Environment.
Inspection Date: May 25th 2016



Figure 1: Naval District Washington or Washington Navy Yard (WNY) 1014 N Street, SE Suite 320, Washington, DC 20374.
Source: Google Earth DC.

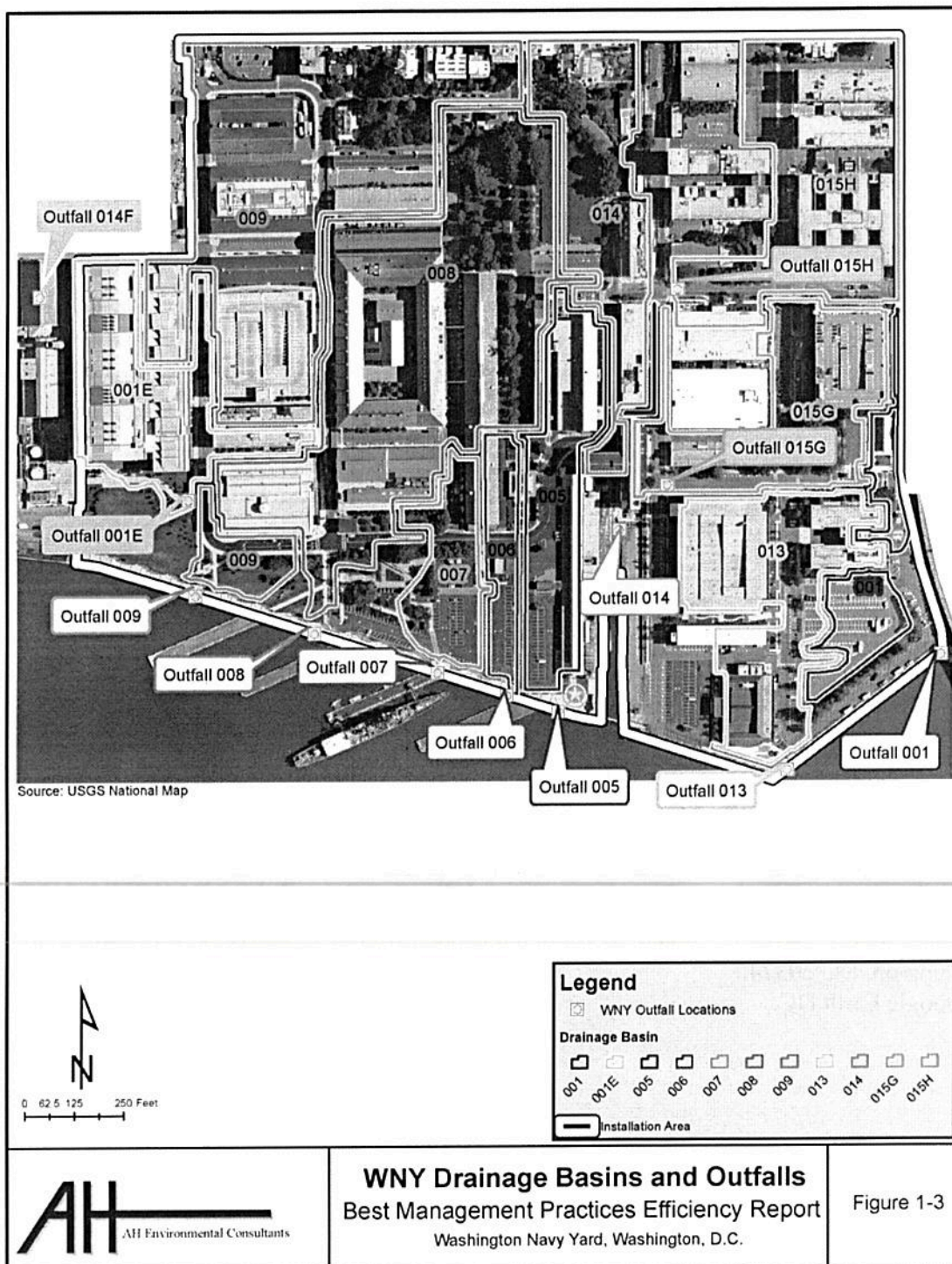


Figure 2: WNY drainage basins and outfalls. Source: AH Environmental Consultants.

**ILLICIT DISCHARGE SURVEY
WASHINGTON NAVY YARD
FINAL**

**Contract Number N40080-14-D-0453
Task Order# 0008**

Prepared For:



**Naval Facilities Engineering Command
1314 Harwood Street, Suite 212
Washington, DC 20374**

Submitted on:

April 26, 2016

Prepared By:



ENGINEERS - DESIGNERS - CONSULTANTS
A Service Disabled Veteran Owned Small Business

**1635-2 Woodside Drive
Woodbridge, Virginia 22191
Telephone: 703-643-2952 / Fax: 703-497-2905
www.rascoengineers.com**

Photo 1: April 2016 Illicit Discharge Survey Provided by WNY

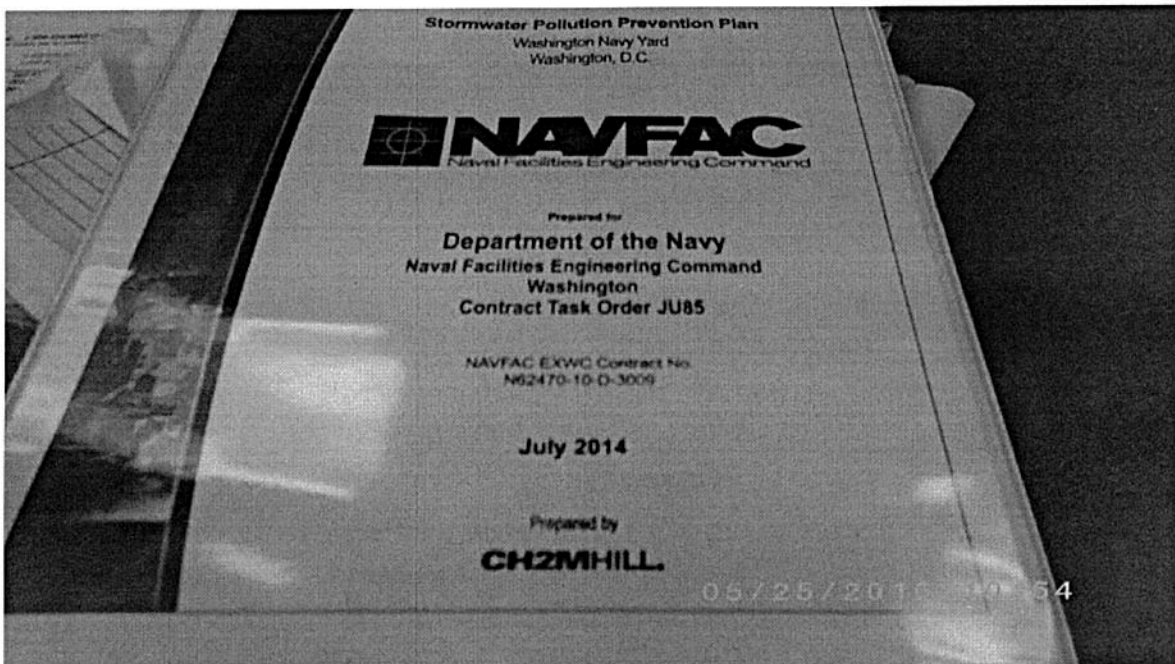


Photo 2: July 2014 SWPPP Revision

Monthly Monitoring/Inspection Log
Washington Navy Yard

Month: May

Date	Description	Checked By	Location	Status	Action	Comments
5/22	Operating BMPs	EE	Parking Lot Bldg 166	D	Report	Good. See notes for additional BMPs.
5/23	Housekeeping	KH	Basecamp	W	Report	Good. See notes for additional BMPs.
5/24	Branch 4	KH	0 St by Bldg 166	D	Report	Good. See notes for additional BMPs.

Notes:
- D: Observed
- W: Reported

05/25/2015 10:54

Photo 3: Monthly BMP and Housekeeping Inspection Form

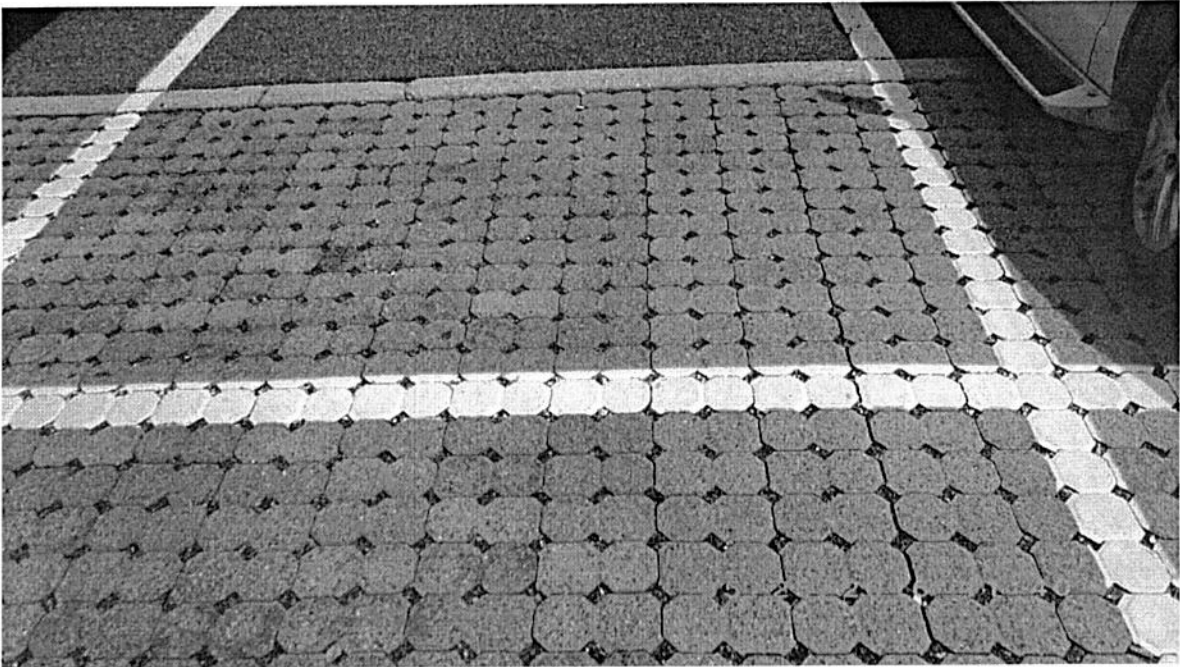


Photo 6: Permeable Pavers in Good Condition



Photo 7: Permeable Paver with Displaced Fill Material Requiring Maintenance



Photo 8: BMP 16- Portion of Bio-Retention Feature on the East Side of Building 76 not Under Construction



Photo 9: BMP 8 Bio-retention Feature Outside in Parking Lot Near Buildings 71 and 292

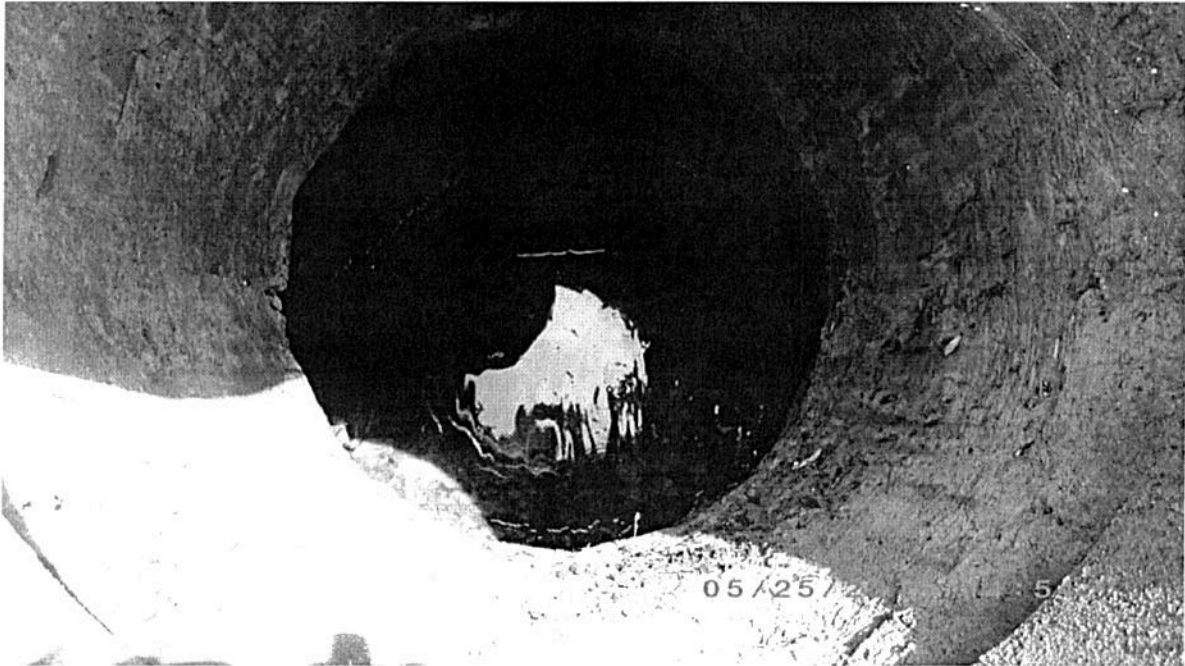


Photo 10: Sampling Point for Outfall 005 with Standing Water and Flow from and Incoming Pipe at the SW Portion (Bottom Right)



Photo 11: Sampling Point for Outfall 007 with Standing Water

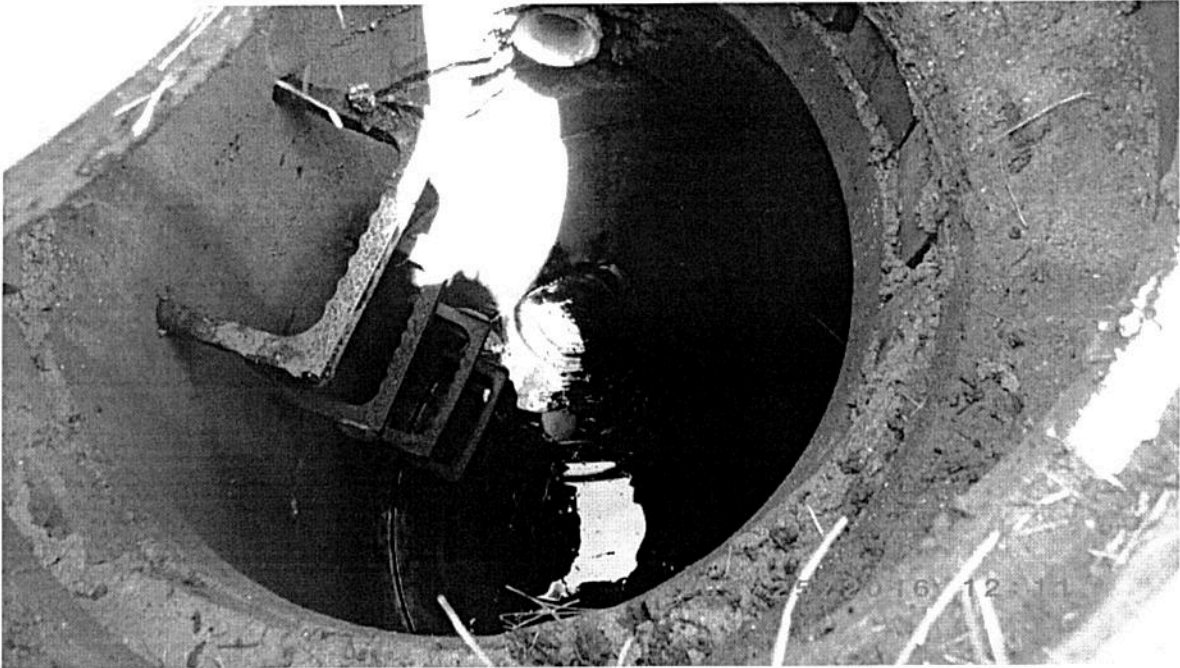


Photo 12: Sampling Point for Outfall 009 with Standing Water



Photo 13: Outfall 001 with Dry Weather Flow

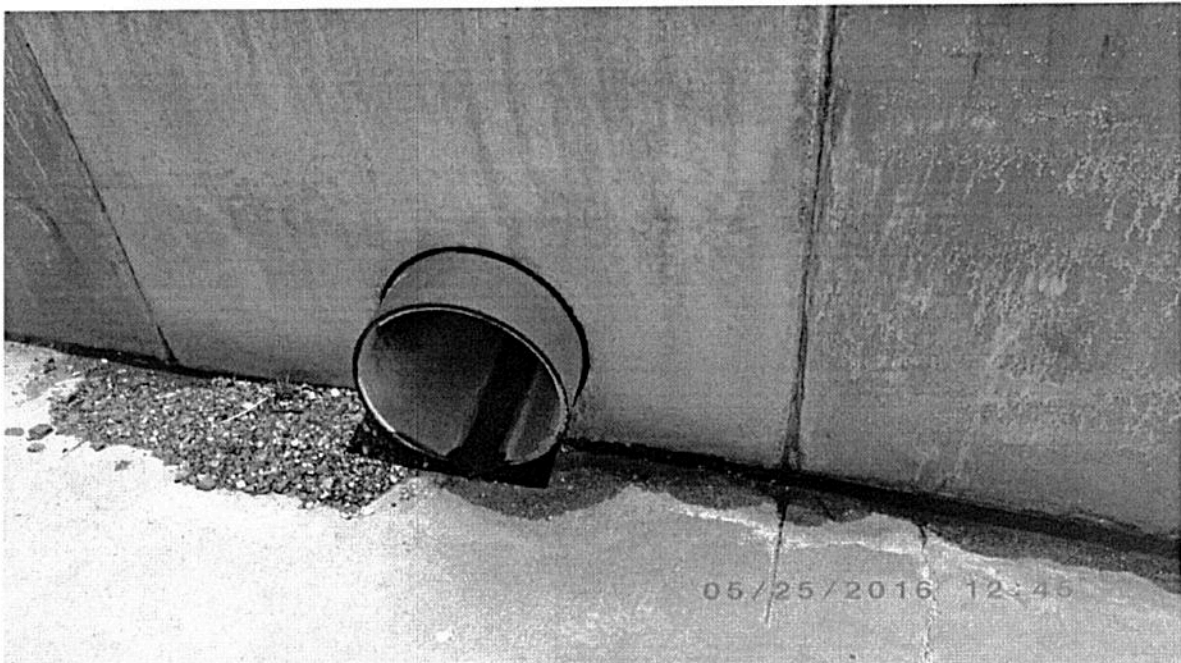


Photo 14: Outfall 014 with Dry Weather Flow the Green Coloring Appeared to be Algae Implying the Flow is Very Consistent



Photo 15: Construction for Relocation of Sampling Point for Outfall 013



Photo 16: Construction for Relocation of Sampling Point for Outfall 015H

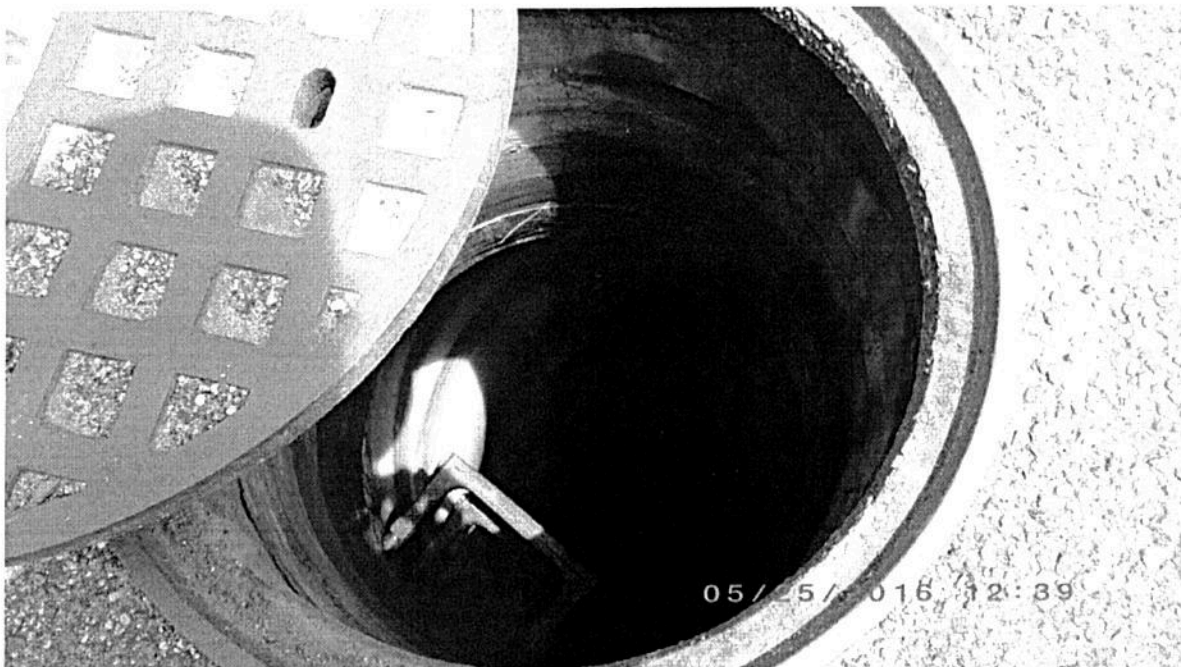


Photo 17: Sampling Point 001B for Outfall 001